

In the Matter of)	
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AMENDMENT OF PART 97 OF THE)	RM-10867
COMMISSION'S RULES GOVERNING)	
THE AMATEUR RADIO SERVICE TO)	
IMPLEMENT CHANGES TO ARTICLE)	
25 OF THE INTERNATIONAL RADIO)	
REGULATIONS ADOPTED AT THE)	
2003 WORLD RADIOCOMMUNICATION)	
CONFERENCE)	

COMMENTS IN OPPOSITION

Thank you for the opportunity to comment on this proposal. As with most efforts, I suppose, there are some elements that I find commendable, while others seem significantly less than well thought out. I will attempt to discuss both.

In general, I support the notions that the Amateur Radio Service is in dire need of an entry license that offers high frequency (HF) privileges, that incentives must be offered to promote individual learning and growth as well as overall growth of the service, that a six-tier system was indeed cumbersome and unnecessary, that some streamlining was

necessary, and that the Commission's action in 1999 left in place some residual issues that should be addressed. However, I do not believe the ARRL plan, as presented, upholds the best interests of the amateur community, or the stated purpose of the Service as described in §47 CFR 97.1.

It is dismaying to me that so much of the ARRL's proposal is directed in response to the 2003 ITU changes in Article 25.5 of the International Radio Regulations.

A much more significant change was made to Article 25.6. Previously, this Article stated, *"Administrations shall take such measures as they judge necessary to verify the operational and technical qualifications of any person wishing to operate the apparatus of an amateur station."* The new language is considerably stronger in nature. It states, *"Administrations shall verify the operational and technical qualifications of any person wishing to operate an amateur station. Guidance for standards of competence may be found in the most recent version of Recommendation ITU-R M.1544."*

Notice the major shift in tenor between, *"administrations shall take such measures as they judge necessary"* and *"administrations shall verify"*. The difference is highly significant, although it is my perception that the ARRL proposal tends to minimize it. Even more to the point, the ITU in the new language of Article 25.6 directs administrations to Recommendation ITU-R.M.1544 for specific guidance in determining the operational and technical qualifications that shall be verified.

In these comments, I will refrain from using the term "Novice" or "Technician" in referring to a new entry class amateur license with some necessary exceptions. The Commission may easily implement either, as both currently exist and are maintained within the FCC database. Where it is possible, I will simply use the terms "entry" or "entry class."

Discussion of Elements within the ARRL proposal

1. Entry Class Examination

Immediately preceding 15 April 2000, the written examinations required for the Technician license were the Novice exam (35 questions) and the Technician exam (35 questions). For the General, the requirements included those necessary for Technician, plus the General exam (35 questions). The Advanced required all the foregoing plus the Advanced exam (50 questions). Finally, the Amateur Extra was achieved by passing all of the previous written exams, plus the Extra exam (50 questions).

Effective 15 April 2000, the requirement for Technician became just the Technician exam (35 questions). The General required the Technician and the General exam (35 questions). To attain Amateur Extra required the foregoing and the Extra exam (50 questions).

In effect, the written examinations were dramatically reduced for all remaining classes – 50% for Technician, 33% for General, and 59% for Amateur Extra. Stated another way, the scrutiny given a license candidate's operational and technical qualifications is at its lowest level since at least 1951. Now the ARRL contends that technical examination requirements should be reduced still further.

The ARRL proposes a 25-question entry license examination that completely eliminates the RF Safety topic, an understanding of which is truly critical given current science and practical application. They propose that individuals passing this miniature examination should be given high frequency (HF) privileges more closely akin to the privileges accorded to current General class licensees than any other.

Further, they propose that all current Technician class licensees be automatically given General class privileges. Since Technician Plus and Technician with HF licensees (both having passed Morse code examinations) are apparently upgrading at a rate that will leave that category empty within the next couple of years, the chief beneficiaries would be codeless Technicians, many of whom have passed only the currently existing 35-question Technician examination. This would amount to another reduction of examination requirements ranging from 50% to 67% for that class of license. Curiously, though, the ARRL proposes that all future candidates for the General class license would have to pass the entry level and the General class examinations, still a reduction of 14%.

For a current Technician who has passed only the present Element 2 examination and subsequently upgrades to Amateur Extra, the reduction in written examination requirements would be another 30% from those now in place.

The ARRL states, in Section 10(2) of its petition, "*the entry level Technician Class license examination is (of necessity) overly comprehensive in its subject matter, and is therefore a deterrent to newcomers*"

The ARRL asserts in Section 13 of their petition, "*ARRL has conducted an extensive review of the licensing and operating privileges*".

But no documentation or evidence is offered to back up these contentions. As the operator of the nation's largest VEC, the ARRL has easy access to excellent statistical data on pass/fail rates for the various classes of license.

Unfortunately, the ARRL did not see fit to describe the details of what was reviewed, how the review was conducted, nor what empirical results were noted. Indeed, as an ARRL member I have not been privy to any of that information.

As the liaison for our local ARRL affiliated VE team, I can only offer the pass/fail rates available in our local records.

During calendar years 2001 and 2002, our team conducted 89 Technician examinations. Of those, we had 75 passing grades, or 84.3%, and 14 failing grades, or 15.7%. Bear in mind that this data comes from South Carolina, where the public education system is well below the national average.

I also examined the pass/fail rates for Novice and Technician examinations conducted in calendar years 1998 and 1999. We conducted 94 Novice examinations, which yielded 62 passing grades, or 66.0%, and 32 failing grades, or 34.0%. We conducted 97 Technician examinations, which yielded 57 passing grades (58.8%) and 40 failing grades (41.2%). During those sessions, 49 candidates took both the Novice and Technician examinations in one sitting. Of those, 33 (67.3%) passed, while only 16 (32.7%) failed.

Note that in selecting the time periods for these comparisons, I purposely avoided the year 2000 for reasons I believe are obvious. I didn't want the data skewed by the announcement and implementation of that year's restructuring.

I did, however look at data from the period between December 30, 1999 and April 15, 2000. Our VE team conducted two examination sessions during that time. A total of 65 written examinations were conducted, 33 of which were for Advanced and Extra. The passing rate in that group was 66.7%. That is offered as an interesting side note, but it does tend to confirm that technically inclined individuals are attracted by a challenge.

The ARRL has the unmitigated gall to contend that slashing technical requirements still further will *"attract and retain technically inclined persons, particularly the youth of our country, and encourage them to learn and to prepare themselves in areas where the United States needs expertise"* (from Section 13(4) of the ARRL petition), and that it will provide incentive for individual learning and advancement.

From my perspective, the only incentive it provides is to simply wait for the requirements to be relaxed even further at a future time. Phase one of what I refer to as 'disincentive licensing,' in 1991, has certainly demonstrated that relaxation of technical standards neither attracts technically inclined persons nor provides incentive for advancement. Phase two (2000) has simply added evidence that it does not.

2. Amateur License Examinations in General

As demonstrated above, technical requirements for all license classes have already been slashed so severely that no logical case can be made for further reductions. Many amateurs of all license classes refer to the last restructuring as a major 'dumbing down' of the Amateur Radio Service. Certainly 'dumbing down' does not comport with the basis and purpose as enumerated in §97.1, nor with ITU Article 25.6, "***Administrations shall verify the operational and technical qualifications of any person wishing to operate an amateur station.***" (emphasis added)

As there is no demonstrable justification to reduce technical examination requirements for the new entry (or any other) class, I implore the Commission to at least maintain the already absolutely minimal 35-question entry-level examination. Personally, I would rather see at least a slight expansion of that examination, perhaps to 45 or 50 questions. Remember that technically inclined individuals find challenges attractive.

The Commission also should look upon the ARRL's suggestion that entry license candidates not be tested on radio frequency safety with a jaundiced eye. It is imperative that all amateur radio operators be familiar with this topic for their own safety and that of others.

In section 25 of the REPORT AND ORDER released on December 30, 1999, the commission stated:

"In reaching this decision, we note that one of the fundamental purposes underlying our Part 97 rules is to accommodate the amateur radio operator's proven ability to contribute to the advancement of the radio art. We believe that an individual's ability to demonstrate increased Morse code proficiency is not necessarily indicative of that individual's ability to contribute to the advancement of the radio art."

The peculiar phrasing employed, "*not necessarily indicative*," is quite perceptive and opens the door to further discussion.

I must agree that Morse code testing, in and of itself, indicates nothing beyond an individual's skill and proficiency in that particular mode. However, viewed in a more contextual sense, it might well be considered at least partially indicative of an individual's ability to contribute to the advancement of the radio art. It is most certainly indicative that the individual was motivated to study and learn required material in order to advance his knowledge and experience, as well as class of license. By extension, then, Morse code proficiency may very well be an excellent indicator of an individual's underlying interest in the radio art and his desire to prepare himself to be able to contribute.

Certainly, when viewed in conjunction with no-code licensees' dismal record of advancement – and even license renewal, one could reasonably conclude that those who are only willing to expend the minimal effort necessary to reach the very low-hanging fruit the no-code Technician license offers have no significant interest in radio communications beyond their own personal convenience and enjoyment. Obviously, then, individuals whose interest extends only to personal convenience and enjoyment cannot be considered good candidates for future contribution.

As noted in RM-10807, the value of Morse code testing as an indicator of an individual's ability to contribute would be significantly less valuable if more stringent examinations of technical knowledge were required. However, the ARRL proposal seeks even further relaxation of technical examination requirements.

If the Basis and Purpose of the Amateur Radio Service as currently enumerated in §47 CFR 97.1 – most specifically subsections b, c, and d - are to be upheld, the Commission must enact examination requirements that truly measure the prospective amateur licensee's potential for contribution, advancement, and future ability to meet the nation's needs.

Whether those examination requirements include either Morse code testing, sufficiently enhanced written technical material, or some combination really matters very little. But I submit that it must be one of those choices simply to maintain the current – and I submit, deficient as viewed in light of new language in Article 25.6 of the International Radio Regulations – level of technical and regulatory knowledge currently required for the various classes of license.

However, I note that No Code International (a group devoted to abolishment of Morse code testing for amateur licenses) reports only 16 nations, some of them very small, have dropped telegraphy testing in the eight months since the ITU decision was announced. As there are 189 ITU member nations, that amounts to less than 10%. Quite a number of

administrations have already announced they will continue Morse testing. This raises serious concerns over reciprocal licensing issues under CEPT and IARP.

As discussed previously, written examination requirements for each of the currently existing license classes were dramatically reduced effective April 15, 2000. This also significantly reduced the challenges and incentives that bright, technically oriented individuals of all ages thrive on.

Beyond establishment of an entry class license, the Commission should seriously consider implementing a new license examination structure that will offer true challenge to individuals with a deep and abiding interest in electronics and radio communication. This will involve considerable broadening of the written examinations, particularly the technical and regulatory aspects, for General and Amateur Extra licenses even to regain a portion of the ground lost as a result of the December 30, 1999 Report and Order.

A minor change in the text of §47 CFR 97.1 would be a significant step in the right direction:

“§97.523 Question pools.

All VECs must cooperate in maintaining one question pool for each written examination element. Each question pool must contain at least 10 times the number of questions required for a single examination. ~~Each question pool must be published and made available to the public prior to its use for making a question set.~~ Each question on each VEC question pool must be prepared by a VE holding the required FCC-issued operator license. See §97.507(a) of this Part.”

Eliminating the words, “*Each question pool must be published and made available to the public prior to its use for making a question set*” would do much to allay concerns that candidates for amateur licensing rely on rote memorization, rather than studying and understanding the concepts of the material.

3. Entry Class Privileges

Section 16 of the ARRL petition states, “*The entry-level license should offer only limited operating privileges: enough for the licensee to experience many facets of Amateur Radio, including nationwide and worldwide communications*”. I agree with that statement completely. The old Novice class entry license clearly demonstrated the value of exposing newcomers to HF operations from its inception in 1951 until the implementation of the no-code Technician license in 1991.

However, the actual entry privileges proposed by the ARRL greatly exceed what could reasonably be described as *“only limited operating privileges: enough for the licensee to experience many facets of Amateur Radio.”* Indeed, under their plan, entry-level licensees would occupy 50% of the 80 meter band, as opposed to the current Novices’ 10%. On 40 meters, the current entry allocation is 17%, but the ARRL proposes 58%. And, on 15 meters, the entry allocation would jump from 22% to 56% of the entire band.

Further, the ARRL proposes to give entry licensees voice privileges in large portions of the 80, 40, and 15-meter amateur bands – voice privileges extending all the way to the upper edge of each band. As noted in RM-10807, *“the Commission has always tried to protect the new, inexperienced operators from their own lack of experience by putting their privileges away from the band edges.”*

I personally have serious concerns about granting entry licensees any voice privileges at all. I fail to see how voice privileges will encourage experimentation and the advancement of skills. Rather, I believe voice privileges would prove a major distraction. That has most certainly been the case for the majority of Technician licensees with only VHF/UHF privileges. A large proportion, if not the vast majority, has never experimented with anything beyond 2 meter and 70 centimeter FM via repeaters. These ‘easy’ communications have distracted these individuals from experimentation and building their skills and base of knowledge.

I do, however, applaud the ARRL for proposing the addition of digital privileges for the new entry class license on the high frequency (HF) bands. I believe it is critical that entry licensees have sufficient privileges to experiment with HF digital operations. I also support the proposed expansion of frequency privileges in the narrow emission bandwidth portions of the 80, 40 and 15-meter bands.

If the Commission decides to grant some voice privileges to the entry licensees, I suggest that they be kept extremely minimal – 25 KHz at most on 80, 40, and 15 meters, and well away from band edges. The privileges suggested by the ARRL for 10 meters are acceptable if voice privileges are deemed desirable.

But, again, I encourage the Commission to consider the pitfalls of granting any voice privileges to entry-level licensees. Voice privileges have proven to encourage complacency rather than study, experimentation, and expansion of operational and technical skills.

The resulting name of the new entry class, whether Novice or Technician, is of no real consequence. The Commission should make this decision solely on which database conversion would be the simplest and most economical.

Certainly, the entry class – given the appropriate level of examination to verify their operational and technical requirements, as per Article 25.6 of the International Radio Regulations – should enjoy the privileges of both the current Novice (with the addition of digital privileges and expanded frequency privileges in the narrow emission bandwidth portions of the bands) and current Technician licensees (except for voice privileges, which should be deleted).

4. Merging of Current Technician Licensees

The ARRL has proposed, once again, that Technician and Technician with HF Certificates (along with the few remaining Technician Plus) licensees be automatically upgraded to General class. The Commission was quite emphatic in denying this request previously, saying in Section 15 of the Report and Order released on December 30, 1999, *“We are not adopting the ARRL suggestion that we automatically upgrade Novice and Technician Plus Class licenses to the General Class We note that the privileges of a General Class licensee in the MF and HF bands are significantly different than a Novice Class licensee.”*

The only significant changes that have occurred since that time are two. First, the telegraphy examination for prospective General licensees has been reduced from 13 to 5 words per minute (wpm). Second, the proportion of Technician licensees who have not passed a Morse code examination has grown substantially, while the proportion of those who have done so is now miniscule. So, the gulf between the privileges of Technician and General (not to mention levels of experience and tested knowledge) has, if anything, grown. Certainly the sound reasoning previously expressed by the Commission in this regard should be repeated here.

Conversely, the only currently existing barrier that separates Technician licensees from enjoying the same HF privileges as Novices is a 5 word per minute Morse code examination. It seems much more appropriate, therefore, that, if license classes are to be merged at all, and if the Morse code examination requirement is to be dropped for the new entry class, that either the Technician class would be merged into the Novice class or the Novice class would be merged into the Technician class.

There is another issue to consider, as well. I have for some time been concerned that the pace of amateur radio regulatory restructuring (1987, 1991, 2000) crippled the Commission's ability to evaluate the true effects of the changes, given the current standard of ten-year license terms. Merging current Technicians into the General class would completely eliminate any ability to objectively evaluate the demonstrated operational qualifications of those individuals as a specific and identifiable group.

Should the Commission accept the ARRL argument that no holder of a current license should lose any privileges, the logistics of implementation become more difficult but not insurmountable. The Commission might choose, for example, to establish a new entry class with the title of "Novice." Current Technician licensees could be granted privileges of the new Novice class in addition to their current privileges. But, at the end of their current license terms, Technicians would be merged into the Novice class, with the privileges of the Novice class, upon renewal if they have not upgraded. Thus they would not lose privileges of their current licenses until the end of their present license terms. This certainly provides an excellent incentive to devote the time necessary to study and expand their operational and technical qualifications, as well as a more than reasonable amount of time to do so.

This would add significant time until the FCC database would finally be streamlined into three license classes. The Commission could, however, minimize the time lag by declaring a moratorium on the issuance of new Technician licenses during the interim between release of the Report And Order and the remaining implementation thereof.

5. Merging of Advanced Licensees

I personally believe that merging the remaining Advanced licensees into the Extra class would be reasonable and another step toward the Commission's stated goal of streamlining. However, many Advanced class licensees I have discussed this with are steadfast in their resolve to continue renewing their licenses without upgrade. In actuality, they do not see moving to Extra as an upgrade. Their reasoning is fairly simple. By maintaining an Advanced class license, they maintain proof that they have passed the old 13 wpm telegraphy examination, rather than the mere 5wpm. And they maintain proof that they passed a written examination that was considerably more rigorous than the current Extra examination.

So, there appears to be a stalemate. Unless the Commission acts to merge these classes, the ULS database will have to support the Advanced amateur license category

until the last remaining member of that class dies. Given the ten-year license term, the category might conceivably remain in the database for more than nine years after the last Advanced licensee passes away.

6. Discussions with ARRL Officials, Members, and other Amateurs

I have been in communication with a wide variety of individuals regarding the ARRL proposal. Here is an excerpt from one response I received from an ARRL official:

"There is another rumor going on that the FCC is saying that this re-licensing is Amateur Radio's 'Last Hurrah'. If we do not get the licensing surge that was seen in the Early 70s/80's, it is very possible that our frequencies are going to 'go away'."

In that vein, here are some interesting statistics compiled by Joe Speroni, AHØA:

Year	Hams as % of population	United States Population	Number of US Hams
1925	0.01%	115,829,000	16,500
1930	0.02%	123,076,741	19,000
1935	0.04%	127,250,232	45,000
1940	0.04%	132,122,446	55,788
1945	0.04%	139,928,165	62,250
1950	0.05%	152,271,417	81,450
1955	0.09%	165,931,202	144,168
1960	0.13%	180,671,158	227,500
1965	0.14%	194,302,963	265,862
1970	0.14%	205,052,174	279,658
1975	0.12%	215,973,199	268,002
1980	0.17%	227,224,681	393,353
1985	0.18%	237,923,795	438,007
1990	0.19%	249,464,396	466,511
1995	0.25%	262,803,276	656,726
2000	0.25%	275,133,623	682,240

I have some observations about these statistics.

Notice that the largest single growth decade in terms of amateur radio operators as a proportion of the nation's population occurred between 1950 and 1960 – roughly an 8% gain. Obviously, this was a result of factors external to amateur radio. We had a booming economy, an expanding middle class, many individuals with newfound interest and experience in technology, and a wide array of military surplus electronics available at bargain prices.

From 1960 until 1990, we had slow but steady growth with an anomalous dip in 1975. Quite obviously, recruitment of new amateur radio operators since 1960 has been an interpersonal process. Members of the amateur radio service expanded the ranks through diligent study, understanding, use and demonstration of technology. They attracted potential candidates by dint of personal achievement and their willingness to share their knowledge with others.

The next largest decade growth period occurred between 1990 and 2000 – 146,050 new amateur radio operators, approximately 6%. But, in actuality, the real growth compared to population halted in 1995. Obviously, there was a large influx during the four-year period of individuals who were attracted by the reduced licensing requirements enacted in early 1991. But the then growth stopped short, and has been relatively stagnant for the past nine years.

As noted previously in this comment, the large influx of 1991 – 1995 was largely comprised of relatively unskilled individuals who have no significant interest in radio communications beyond their own personal convenience and enjoyment. This is demonstrated in the incredibly high rate of license non-renewal among this group.

So, what had these individuals to share with the bright, inquisitive people who have always been attracted to the amateur radio service by knowledgeable, well-experienced amateurs? I would suggest the answer to that question is ‘nothing.’ In actuality, some of them may have even dissuaded people from seeking an amateur license by unwitting demonstration of their relatively unsophisticated grasp of technology.

As Technician licensees who have not passed a Morse code examination or any more advanced written examinations now comprise nearly half of all amateurs, the proportion of amateurs to the population has grown significantly, but the technical expertise has remained flat. Consequently, the proportional rate of inter-personal recruitment has also remained flat

The next largest periods of growth relative to population occurred in the periods 1970 – 1980 and 1980 – 1990, 3% and 2% respectively. Obviously this was the period following the implementation of incentive licensing, a time in which the technical requirements for advancement in the amateur radio ranks were significantly enhanced. Again, I submit, this is evidence that the amateur radio service is unique in that it grows in the face of technical challenge and either becomes stagnant or declines when confronted with relaxed standards.

7. Implementation Timetable

The Commission's Report and Order issued 30 December 1999 set an implementation date of 15 April 2000, clearly a very short time period. I believe the National Council of Volunteer Examiner Coordinators (NCVEC) did an admirable job of working out the logistics and putting into place a totally new examination scheme, given the severe time constraints. But those rushed initial examinations have, unfortunately, become the baseline. Degradations in the ability of examinations to ascertain candidates' technical and operational qualifications at each level since that time are quite noticeable.

Contrary to the ARRL's request, I beg the Commissioners to set a more extended time period in any action to allow a far more thorough and complete implementation. If this is to be the final restructuring of the Amateur Radio Service for the foreseeable future, it is imperative that it be conducted in an extremely deliberative manner.

8. Purpose of ARRL Proposal

Perhaps there is another explanation of what motivated the ARRL to file this petition. ARRL membership among licensed U.S. amateurs is in serious decline, and has been for some time. During the past half century, ARRL membership among American amateurs peaked in 1977 at 51.5%. The current figure is 22.5%, the lowest percentage of at least the last 44 years.

In fact, the ARRL today has far fewer members than it did in 1977. Membership at the end of that year was 160,200. As of August 2003, membership was 154,254. These statistics were also compiled by Joe Speroni, AHØA.

The 1977 peak of amateurs who were ARRL members came during a period of significant expansion of technical requirements in the Amateur Radio Service. In the more recent times of greatly relaxed technical standards, ARRL membership has dropped from one-in-two to one-in-five. This is a clear signal from the amateur community, but one to which ARRL officials seem oblivious.

It seems to me an inescapable conclusion that the ARRL is out of touch with the amateur radio community, and is seeking only to preserve the organization rather than to promote the Amateur Radio Service, as it claims.

9. Regulatory Issues

Granting any portion of the petition submitted by the ARRL, or others similar to it, will inevitably tax the Commission's regulatory resources. To compensate, I encourage the Commission to seek any changes in Section 6003(a) of the Omnibus Budget Reconciliation Act of 1993 (Public Law 103-66) that may be necessary in order to collect regulatory fees from amateur licensees. Even a nominal five dollars (\$5⁰⁰) per year would gross approximately three million dollars (\$3,000,000⁰⁰) annually for regulatory activities.

In order to minimize collection costs, the Commission should mandate that fees for each ten-year license term be remitted prior to issuance of any license. This task of collection could easily be delegated to the Volunteer Examiner Coordinators (VECs) as part of the examination process.

Summary

1. I support consolidation of license classes (active and legacy) from six to three. These would be an entry class of whatever title seems most appropriate to the Commission, General, and Amateur Extra.
2. I support establishment of an entry class license with high frequency (HF) privileges constituted of CW and digital modes on the 80, 40, 15, and 10-meter bands, as well as CW and digital privileges on the VHF and UHF bands where current Technicians have allocations.
3. I support a 200-watt transmitter output limitation for entry class licensees on all bands.
4. I do not support entry class voice privileges on any band, as they serve only to distract newer licensees from study, experimentation, and development of skills.
5. I support enhanced technical examination of candidates for all classes of amateur license.
6. I believe that it is imperative that the Commission assures that written examinations for all classes of amateur radio license are sufficient to verify that candidates possess the appropriate operational and technical qualification. Most specifically, the examinations must assure candidates have a working knowledge of radio frequency safety issues.
7. I support retention of Morse code testing for General and Amateur Extra license classes, unless technical requirements are expanded to at least the level suggested in RM-10807, and would still support Morse code testing for Amateur Extra simply because an amateur of that class should be well versed in all aspects of amateur operation.

8. I believe §47 CFR 97.1 and Article 25.6 of the International Radio Regulations prevent adoption of the ARRL proposal (and those similar to it) without significant modification as discussed in this comment.
9. I believe that the continued value of the Amateur Radio Service to the current and future needs of our nation will be significantly diminished or even destroyed if technical and operational requirements are diminished any further, or even left as they are now.
10. I believe a significant enhancement of technical and operational requirements for each class of amateur radio license will stimulate individual experimentation, encourage study, and promote the continued growth and development of the Amateur Radio Service as a resource to the nation.

Respectfully submitted,

Robert G. Rightsell, AE4FA
Post Office Box 1492
Lexington, SC 29071-1492
ae4fa@logicsouth.com

ARRL Member